What is claimed is:

1. - 48. (Canceled)

49. (Canceled)

50. (Canceled)

51. (Canceled)

52. (Currently amended) The method of claim 60 ~~any of claims 49, 50 or 51~~, wherein said quantifying of said level of ~~said~~ RNA encoded by said gene ~~in step (a)~~ is effected by quantifying said level of RNA relative to a housekeeping gene.

53. (Currently amended) The method of claim 60 ~~any of claims 49, 50 or 51~~, wherein said quantifying of said level of ~~said~~ RNA encoded by said gene ~~in step (a)~~ is effected by quantification of cDNA ~~corresponding~~ complementary to ~~said~~ RNA encoded by said gene.

54. (Currently amended) The method of claim 61 ~~any of claims 49, 50 or 51~~, wherein said control subjects do not have schizophrenia ~~and said comparison of step (b) results in a statistically significant difference~~.

55. (Canceled)

56. (Currently Amended) The method of claim 60 ~~any of claims 49, 50 or 51~~, wherein said quantifying of said level of ~~said~~ RNA encoded by said gene ~~in step (a)~~ is ~~determined~~ effected using quantitative ~~real-time RT~~-PCR.

57. (Currently amended) The method of claim 60 ~~any of claims 49, 50 or 51~~, wherein said quantifying of said level of ~~said~~ RNA encoded by said gene ~~in step (a)~~ is ~~determined~~ effected using an array.

58. (New) A method for detecting expression of a gene encoding a Charcot-Leyden crystal protein (CLC gene) in a human test subject suspected of having schizophrenia, comprising detecting RNA encoded by said gene in a blood sample of said test subject, using an oligonucleotide of predetermined sequence which is specific for RNA encoded by said gene, and/or for cDNA complementary to RNA encoded by said gene.

59. (New) The method of claim 58, wherein said detecting of said RNA comprises producing an amplification product from RNA encoded by said gene in said blood sample of said test subject, using primers specific only for RNA encoded by said gene and/or for cDNA complementary to RNA encoded by said gene.

60. (New) The method of claim 58 or claim 59, wherein said method further comprises quantifying a level of RNA encoded by said gene in said sample.

61. (New) The method of claim 60, further comprising comparing said level of RNA to a quantified level of control RNA encoded by said gene in blood samples of control subjects.

62. (New) The method of claim 61, wherein said control subjects are selected from the group consisting of: subjects classified as healthy subjects and subjects classified as having schizophrenia.

63. (New) The method of claim 62, wherein said control subjects are classified as healthy subjects.

64. (New) The method of claim 63, further comprising classifying said test subject as being a candidate for having schizophrenia if said level of RNA encoded by said gene in said blood sample of said human test subject is higher than that of said control subjects classified as healthy subjects.

65. (New) The method of claim 63, further comprising identifying said test subject as being a candidate for having schizophrenia if said level of RNA encoded by said gene in said blood

sample of said human test subject is at least 2 times higher than that of said control subjects classified as healthy subjects.

66. (New) The method of claim 63, further comprising identifying said test subject as being a candidate for having schizophrenia if said level of RNA encoded by said gene in said blood sample of said human test subject is 2.25 times higher than that of said control subjects classified as healthy subjects.

67. (New) The method of claim 65 wherein said gene is differentially expressed in said blood sample of said human test subject relative to that of said control subjects classified as healthy subjects with a p value of < 0.05.

68. (New) The method of claim 66, wherein said gene is differentially expressed in said blood sample of said human test subject relative to that of said control subjects classified as healthy subjects with a p value = 0.0212.

69. (New) A method of screening a human test subject for being a candidate for having schizophrenia, comprising:

(a) detecting RNA encoded by a gene encoding a Charcot-Leyden crystal protein (CLC gene) in a blood sample of said test subject using an oligonucleotide of predetermined sequence which is specific for RNA encoded by said gene, and/or for cDNA complementary to RNA encoded by said CLC gene; and

(b) quantifying a level of RNA encoded by said CLC gene detected in step (a); and

(c) comparing said level of RNA quantified in step (b) to a quantified level of control RNA encoded by said CLC gene in blood samples of control subjects classified as healthy subjects;

wherein said test subject is a candidate for having schizophrenia if said level of RNA encoded by said CLC gene in said blood sample of said human test subject is at least 2 times higher than that of said control subjects classified as healthy subjects with a p value < 0.05.

70. (New) A method of screening a human test subject for being a candidate for having schizophrenia, comprising:

(a) detecting RNA encoded by a gene encoding a Charcot-Leyden crystal protein (CLC gene) in a blood sample of said test subject using an oligonucleotide of predetermined sequence which is specific for RNA encoded by said gene, and/or for cDNA complementary to RNA encoded by said CLC gene; and

(b) quantifying a level of RNA encoded by said CLC gene detected in step (a); and

(c) comparing said level of RNA quantified in step (b) to a quantified level of control RNA encoded by said CLC gene in blood samples of control subjects classified as healthy subjects;

wherein said test subject is a candidate for having schizophrenia if said level of RNA encoded by said CLC gene in said blood sample of said human test subject is 2.25 times higher than that of said control subjects classified as healthy subjects with a p value = 0.0212.

71. (New) The method of claim 58 or claim 59, wherein said blood sample is selected from the group consisting of: a whole blood sample, a blood sample which has not been fractionated into cell types, and a blood sample which comprise leukocytes which have not been fractionated into cell types.

72. (New) The method of claim 60, wherein said blood sample is selected from the group consisting of: a whole blood sample, a blood sample in which has not been fractionated into cell types, and a blood sample which comprise leukocytes which have not been fractionated into cell types.

73. (New) The method of claim 61, wherein:

(i) said blood sample of said test subject is a whole blood sample and said blood samples of said control subjects are whole blood samples; or

(ii) said blood sample of said test subject is a blood sample which has not been fractionated into cell types and said blood samples of said control subjects are blood samples which have not been fractionated into cell types; or

(iii) said blood sample of said test subject is a blood sample which comprises leukocytes which have not been fractionated into cell types and said blood samples of said control subjects are blood samples which comprise leukocytes which have not been fractionated into cell types.

74. (New) The method of claim 69 or claim 70, wherein:

(i) said blood sample of said test subject is a whole blood sample and said blood samples of said control subjects are whole blood samples; or

(ii) said blood sample of said test subject is a blood sample which has not been fractionated into cell types and said blood samples of said control subjects are blood samples which have not been fractionated into cell types; or

(iii) said blood sample of said test subject is a blood sample which comprises leukocytes which have not been fractionated into cell types and said blood samples of said control subjects are blood samples which comprise leukocytes which have not been fractionated into cell types.

75. (New) A method of identifying a gene encoding a Charcot-Leyden crystal protein (CLC gene) as a candidate biomarker for schizophrenia in a human subject, comprising:

(a) detecting RNA encoded by said CLC gene in blood samples of human patients diagnosed as having schizophrenia, using an oligonucleotide of predetermined sequence which is specific for RNA encoded by said gene, and/or for cDNA complementary to RNA encoded by said CLC gene; and

(b) quantifying a level of RNA encoded by said CLC gene detected in step (a); and

(c) comparing said level of RNA quantified in step (b) to a quantified level of control RNA encoded by said CLC gene in blood samples of healthy control subjects;

wherein said CLC gene is a candidate biomarker for schizophrenia in a human subject if said level of RNA encoded by the CLC gene in said blood samples of said human patients diagnosed as having schizophrenia is at least 2 times higher than that of said healthy subjects with a p value < 0.05.

76. (New) A method of identifying a gene encoding a Charcot-Leyden crystal protein (CLC

gene) as a candidate biomarker for schizophrenia in a human subject, comprising:

(a) detecting RNA encoded by said CLC gene in blood samples of human patients diagnosed as having schizophrenia, using an oligonucleotide of predetermined sequence which is specific for RNA encoded by said gene, and/or for cDNA complementary to RNA encoded by said CLC gene; and

(b) quantifying a level of RNA encoded by said CLC gene detected in step (a); and

(c) comparing said level of RNA quantified in step (b) to a quantified level of control RNA encoded by said CLC gene in blood samples of healthy control subjects;

wherein said CLC gene is a candidate biomarker for schizophrenia in a human subject if the level of RNA encoded by the CLC gene in said blood samples of said human patients diagnosed as having schizophrenia is 2.25 times higher than that of said healthy subjects with a p value = 0.0212.

77. (New) The method of claim 75 or claim 76, wherein:

(i) said blood samples of said human patients diagnosed as having schizophrenia are whole blood samples and said blood samples of said healthy control subjects are whole blood samples; or

(ii) said blood samples of said human patients diagnosed as having schizophrenia are blood samples which have not been fractionated into cell types, and said blood samples of said healthy control subjects are blood samples which have not been fractionated into cell types; or

(iii) said blood samples of said human patients diagnosed as having schizophrenia are blood samples which comprise leukocytes which have not been fractionated into cell types and said blood samples of said control subjects are blood samples which comprise leukocytes which have not been fractionated into cell types.

78. (New) The method of claim 75 or claim 76, wherein said quantifying of said level of RNA encoded by said gene is effected by:

(i) quantifying said level of RNA relative to a housekeeping gene; or

(ii) quantification of cDNA complementary to RNA encoded by said gene; or

(iii) using quantitative RT-PCR; or

(iv) using an array.

79. (New) A method of classifying expression of a gene encoding a Charcot-Leyden crystal protein (CLC gene) in a human test subject, said method comprising:

(a) quantifying a level of RNA encoded by said CLC gene in a blood sample of said test subject; and

(b) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples of control subjects classified as having schizophrenia; and

(c) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples of control subjects classified as healthy subjects;

wherein a determination from steps (b) and (c) that said level of step (a) is statistically similar to said levels in said samples of said subjects classified as having schizophrenia and is statistically higher relative to said levels in said samples of said subjects classified as healthy subjects, results in a classification of CLC gene expression in said test subject with that of said subjects classified as having schizophrenia, and

wherein a determination from steps (b) and (c) that said level of step (a) is statistically lower relative to said levels in said samples of said subjects classified as having schizophrenia and is statistically similar to said levels in said samples of said subjects classified as healthy subjects, results in a classification of CLC gene expression in said test subject with that of said subjects who classified as healthy subjects.

80. (New) The method of claim 54 or claim 79, wherein none of said control subjects are classified as having a disease selected from the group consisting of rheumatoid arthritis, hypertension, obesity, allergies, mild osteoarthritis and severe osteoarthritis.